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In [1]:  # AIM: DATA VISULIZATION USING matplotlib
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In [2]:  # Name: Pragati Pramod Bindod  
# Roll no. : 15  
# Section : A
```

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In [8]:  import numpy as np  
from matplotlib import pyplot as plt
```

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In [9]:  x=np.arange(1,11)
```

```
In [10]: x
```

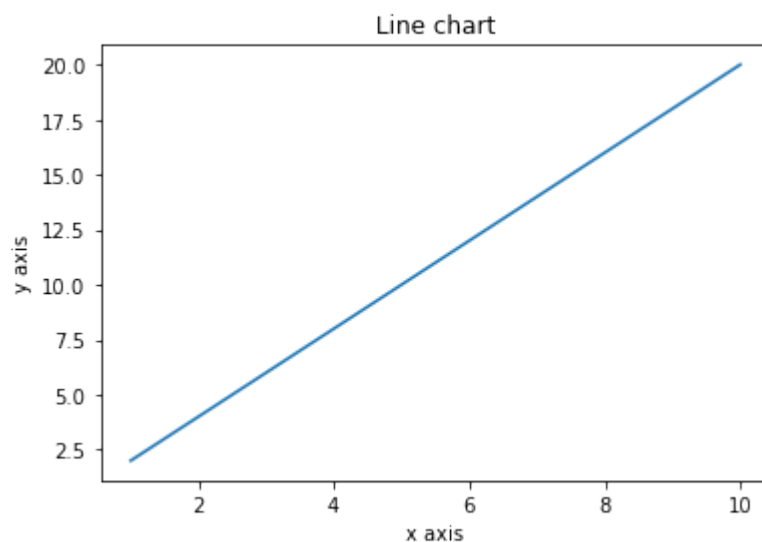
```
Out[10]: array([ 1,  2,  3,  4,  5,  6,  7,  8,  9, 10])
```

```
In [11]: y=2*x
```

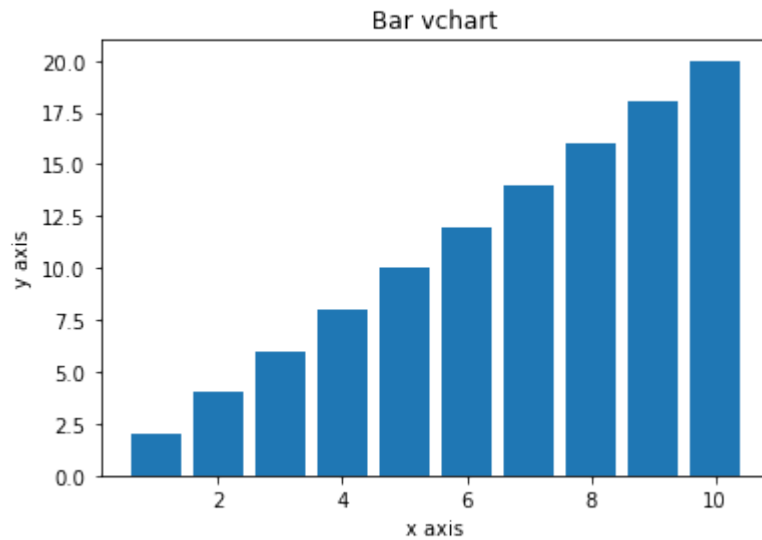
```
In [12]: y
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Out[12]: array([ 2,  4,  6,  8, 10, 12, 14, 16, 18, 20])
```

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In [20]: plt.plot(x,y)  
plt.title("Line chart")  
plt.xlabel("x axis")  
plt.ylabel("y axis")  
plt.show()
```



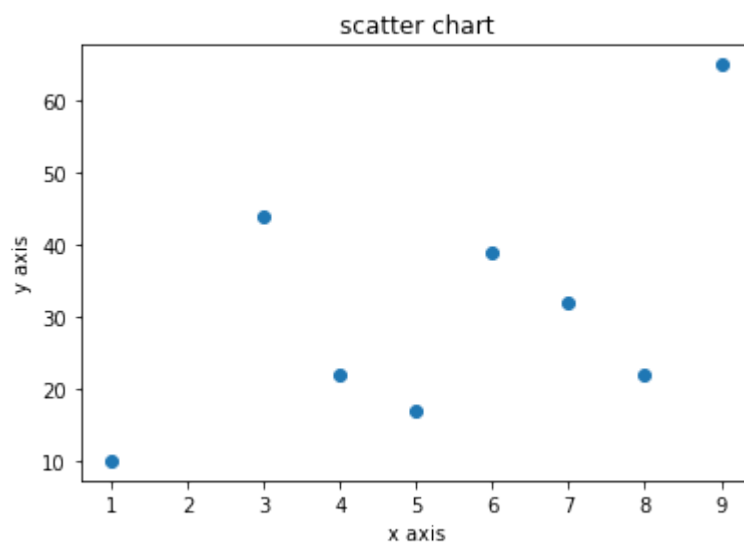
```
In [21]: ▶ plt.bar(x,y)
plt.title("Bar vchart")
plt.xlabel("x axis")
plt.ylabel("y axis")
plt.show()
```



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In [29]: ▶ #SCATTER PLOT
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In [42]: ▶ a=(1,5,8,6,3,7,9,4)
b=(10,17,22,39,44,32,65,22)

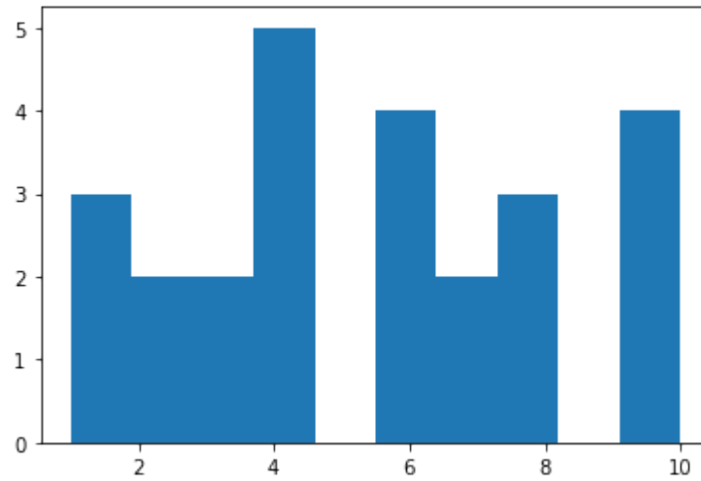
plt.scatter(a,b)
plt.title("scatter chart")
plt.xlabel("x axis")
plt.ylabel("y axis")
plt.show()
```



```
In [43]: ▶ #HISTOGRAM
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```
In [46]: ▶ H=[1,1,1,2,2,6,6,6,6,6,4,4,4,4,4,3,3,10,10,10,10,7,7,8,8,8]
```

In [49]: ▶ `plt.hist(H)`
`plt.show()`



In []: ▶